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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,517	07/11/2003	Masayuki Tobita	14157-009001 / PIP2003100	2965
26161	7590	07/13/2005	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			WU, SHEAN CHIU	
			ART UNIT	PAPER NUMBER

1756

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/617,517

**Applicant(s)**

TOBITA ET AL.

**Examiner**

Shean C. Wu

**Art Unit**

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-12 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/11/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the thermal conductive polymer molded article has the first conductivity of between 0.7 and 20 W/(m.K) and density of 1.10 to less than 1.50 g/cm<sup>3</sup>, does not reasonably provide enablement for the molded article outside these ranges. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. See section [041] and [043].

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 4-5 and 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Valtriani et al. (marromol. Chem. Phys., 2001, pages 2202-2212).

The claimed thermal conductive polymer molded article is inherently anticipated by Rodrun LC5000 (trademark), which comprises pellets of wholly aromatic polyester

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manufactured by UNITIKA Ltd. The reference discloses Rodrun LC5000. The claim recites using an old structure (LC5000) and the “use” is directed to a result or property of that structure, then the claim is anticipated (In re May, 574 F.2d 1082, 1090, 197 USPQ 601, 607 (CCPA 1978)). Also, the discovery of a new use for an old structure based on unknown properties of the structure might be patentable to the discoverer as a process of using (In re Hack, 245 F.2d 246, 248, 114 USPQ 161, 163 (CCPA 1957)). See Example 1 of the present invention, which the thermal conductive polymer is Rodrun LC5000.

4. Claims 1-2, 4-5, 7-9 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Bushida et al. (US 6,154,028).

The reference discloses a magnetic sensor employing various kinds of sensor devices, one of which makes use of an inductor device. The inductor device is typically used as one of a number of passive elements that compose an electronic circuit. A signal due to the inductance component of a magnetic element varies upon application of an external magnetic field (Hex). The reference further teaches that magnetic sensor device fabricated in the second embodiment was placed in a Helmholtz coil, and varying strengths of an external magnetic field were applied in the longitudinal direction of the magnetic element.

The magnetic element comprising molten resin is then injected into the mold cavity at about 300 C<sup>0</sup>. A suitable molding resin is a liquid-crystal polyester resin (e.g., Rod Run LC5000 Series of UNITIKA, LTD, see col. 14, lines 30-62). Using common resin molding technology, the device can be processed to any desired final shape to allow

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the device to be easily mounted on an electronic circuit and other external circuits. The thickness of the resin coating is less than 1.5 mm. The discovery of a new use for an old structure based on unknown properties of the structure might be patentable to the discoverer as a process of using (In re Hack, 245 F.2d 246, 248, 114 USPQ 161, 163 (CCPA 1957). See Example 1 of the present invention, which the thermal conductive polymer is Rodrun LC5000

Therefore the reference anticipates or inherently anticipates the claimed invention.

5. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagashima et al. (US 5,847,039).

The reference discloses a liquid crystalline polyester resin composition comprising 0.1-50 parts by weight of at least one or more inorganic compounds selected from oxides, peroxides, double oxides and hydroxides of calcium, sodium, barium or zinc added to 100 parts by weight of a liquid crystalline polyester. The reference liquid crystalline polyester resin composition is molded into a product, which has a mechanical strength, heat resistance, a good granulating properties and molding properties and therefore is very useful for electric or electronic parts (see abstract). The flow temperature of the liquid crystalline polyester is preferably 200 °C to 400 °C and more preferably 250 °C to 350 °C. See Examples 1-8 on col. 7. The discovery of a new use for an old structure based on unknown properties of the structure might be patentable to the discoverer as a process of using (In re Hack, 245 F.2d 246, 248, 114 USPQ 161,

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163 (CCPA 1957). Therefore the reference anticipates or inherently anticipates the claimed invention.

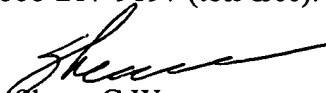
*Allowable Subject Matter*

6. Claims 10-12 are allowed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C. Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Shean C Wu  
Primary Examiner  
Art Unit 1756

scw